CLUX-C61C

6 by 1 HDMI V1.3 Switcher with CEC

Operation Manual

CLUX-C61C

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Safety Precautions

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	Date	Summary of Change
V1	20090717	Preliminary Release
VR2	20120201	RS-232 Command

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1. Introduction

This is a high performance HDMI switcher that allows for various HDMI sources to share one HDTV display. This device features CEC control functions and supports deep color, xvYCC and RS-232 control. Simply press one button select your desired HDMI source to display on the HDTV or use remote control to control your sources from a distance. Switching from one HDMI input source to another will no longer be an inconvenience.

2. Applications

- Multi-sources with one display
- Showroom display
- Educational presentation

3. Package Contents

- 6 by 1 HDMI v1.3 Switcher
- Remote Control (CR-63 with battery)
- 5V DC Power Supply Adaptor
- Operation Manual

4. System Requirements

Input source equipments, output displayer with HDMI cables.

5. Features

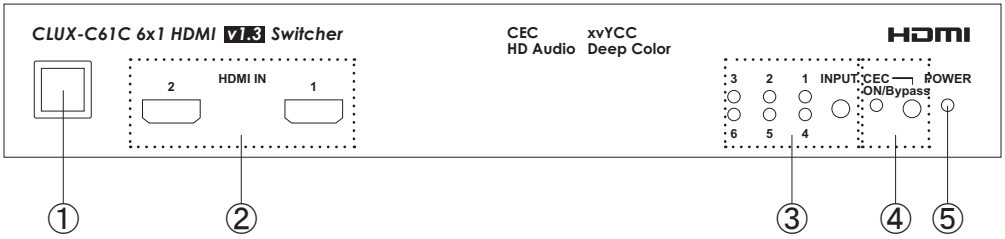
- HDMI 1.3 and HDCP 1.1 compliant
- Supports deep color display RGB/YCbCr 4:4:4 24/30/36 bits
- Supports color space YCbCr 4:2:2 16/20/24 bits
- Supports high definition audio – Dolby Digital True HD® and DTS-HD®
- Signal Enhancement feature allows signal quality improvement after long distance transmission
- HDMI cable distance test with 1080p/8-bit resolution, the input/output can reach up to 15/15 meters. If running at 1080p/12-bit, the input/output can reach at up to 15/6 meters
- PC resolution supports: VGA, SVGA, XGA, SXGA, and UXGA (1600 x 1200)
  HD resolution supports: 480i ~1080p 50/60 and 1080p 24
- With remote control function
- Supports RS232 operation
- Supports CEC control function
- Supports xvYCC

6. Specifications

Frequency Bandwidth	2.25Gbps(single link)
Input Ports	6 x HDMI female ports (Type A connector)
Output Ports	1 x RS232
	1 x HDMI female port (single link)
Color Space	YCbCr 4:2:2 16/20/24 bits
Deep Color	RGB / YCbCr 4:4:4 24/30/36 bits
ESD Protection	Human body model: ± 10kV (air-gap discharge)
	± 6kV (contact discharge)
Input TMDS signal	1.2 Volts (peak-to-peak)
Input DDC signal	5 Volts (peak-to-peak, TTL)
Power Supply	5V/1A
Weight(g)	850
Dimensions(mm)	280(W) x 104(D) x 44(H)
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0°C~40°C / 32°F ~ 104°F
Storage Temperature	-20°C~60°C / -4°F ~ 140°F
Relative Humidity	20%~90% RH (non-condensing)
Power Consumption	4.1W

7. Operation Controls and Functions

7.1 Front Panel



① Remote control sensor.

② HDMI IN 1~2: These slots connect to the HDMI/DVI output ports of your source equipments. ie, set- up-box, DVD or Blue Ray.

③ Input select indicators: Press the "INPUT" button repeatedly to switch to your desired input source. The LED that illuminates indicate the corresponding input source is selected.

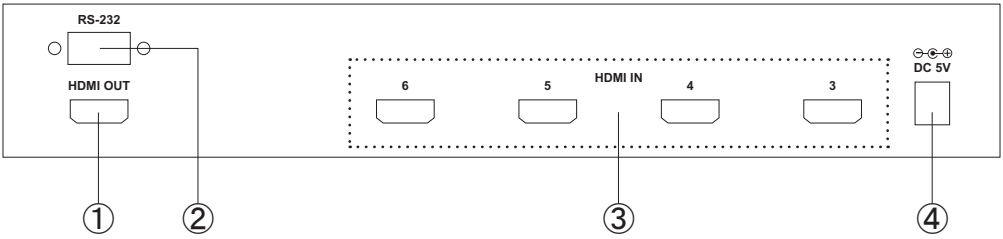
④ CEC button indicator: When the LED illuminate it means CEC is ON. Press again to switch CEC to bypass mode and the LED will not illuminate which means the CEC function will be terminate.

Note: Both input source and output display must support CEC function for the switcher to properly perform CEC.

⑤ POWER indicator: When power is connected to the device, the device automatically turns on and the power LED will turn red.

Note: To turn ON or switch the device to standby mode, please press the "POWER" button on the remote control unit.

7.2 Rear Panel



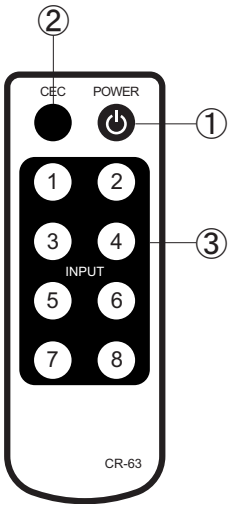
① HDMI OUT: This is the slot where you connect the HDMI output of the switcher to the HDMI input of your display using a HDMI cable.

② RS-232 input: When doing firmware upgrade and/or PC remote system control, connect a D-sub 9 pin cable from this RS232 slot to your computer.

③ HDMI IN 3~6: These slots connect to the HDMI/DVI output ports of your source equipments. ie, set- up-box, DVD or Blue Ray.

④ DC 5V: Connect the 5V DC power adaptor into this slot and plug the adaptor to an AC wall outlet.

8. Remote Control



① Power: This button turns on the unit or set the device to standby mode.

② CEC: This button turns on the CEC function of the unit or set it to bypass mode. Please refer to section 6.1 for more details.

③ Input selector: Buttons 1~6 to select the desired input sources. Buttons 7~8 do not functioning for this model.

9. RS-232 Protocol

9.1 Pin Definitions

Switcher			**Remote Controller**	
PIN	Assignment		PIN	Assignment
1	NC		1	NC
2	TxD		2	RxD
3	RxD	→	3	TxD
4	NC	←	4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

Baud Rate: 19200 bps
Data Bit: 8 bits
Parity: None
Stop Bit: 1 bit
Flow Control: None

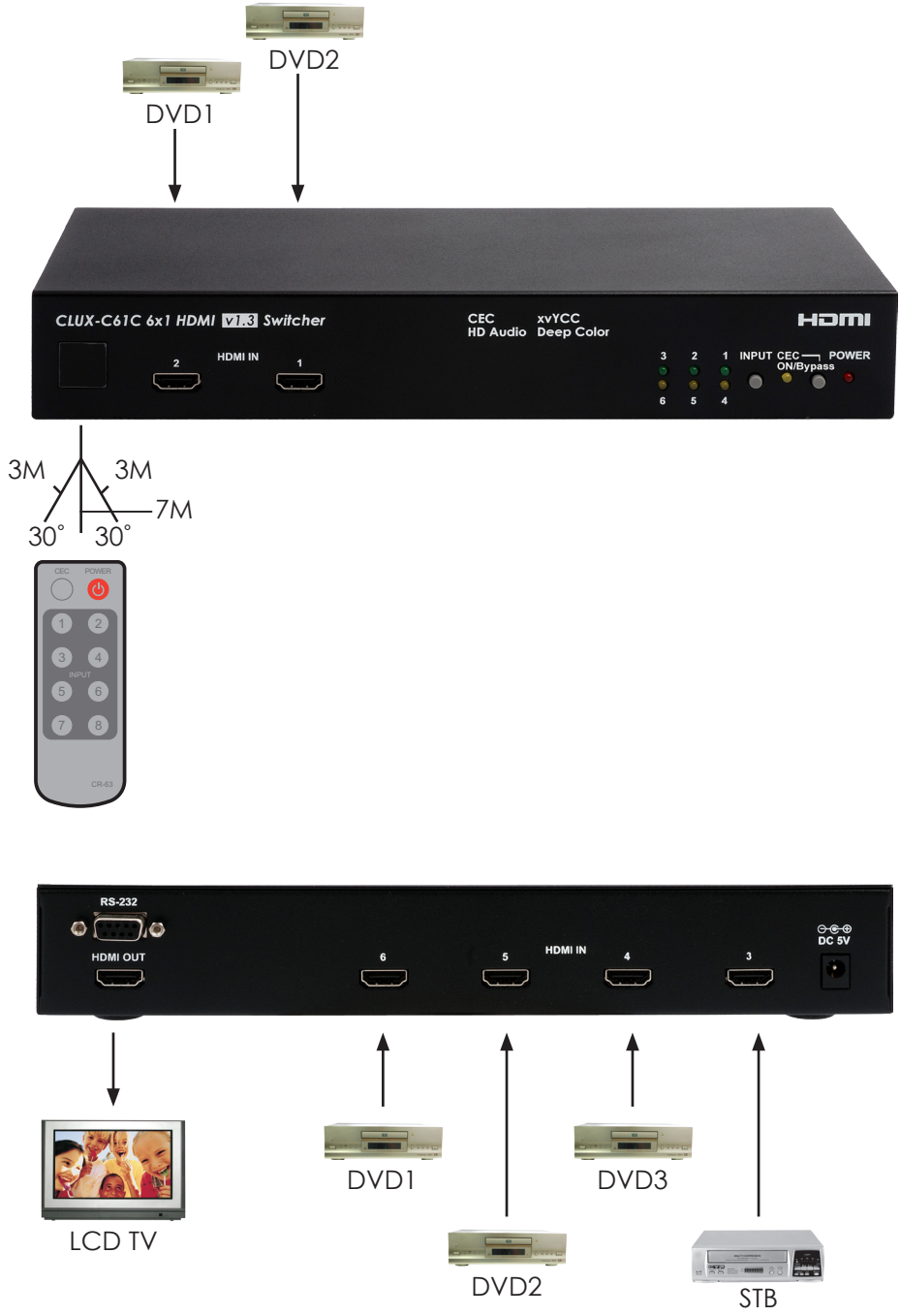
9.2 RS-232 Command

Command Code	Function
I1	PORT 1 ON
I2	PORT 2 ON
I3	PORT 3 ON
I4	PORT 4 ON
I5	PORT 5 ON
I6	PORT 6 ON
C1	CEC ON
C0	CEC OFF
P1	POWER ON
P0	POWER OFF
S	REPORT STATE

Note:

1. The command is a combination of characters and digits with case-insensitive.

10. Connection and Installation



Acronyms

A

Acronym	Complete Term
CEC	Consumer Elelctronics Control
DTS	Digital Theater System
HDCP	High-bandwith Digital Content Protection
HDMI	High-Definition Multimedia Interface
HDTV	High-Definition Television
RGB	Red Green Blue
SVGA	Super Video Graphics Array
SXGA	Supper Extended Graphics Array
UXGA	Ultra Extended Graphics Array
VGA	Video Graphics Array
XGA	Extended Graphics Array

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